

Notice of Allowability

Application No.

10/710,937

Examiner

H. T. Le

Applicant(s)

JIANG ET AL.

Art Unit

1773

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to amendment filed October 14, 2006.
2. ☒ The allowed claim(s) is/are 1,3-6 and 8-14.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892).
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

PATRICK JOSEPH RYAN
SUPERVISOR PATENT EXAMINER

FDR H. T. Le
Primary Examiner
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EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.
2. Authorization for this examiner's amendment was given in a telephone interview with Applicant's Representative, Paul Bowen, on December 20, 2006.
3. The application has been amended as follows:
4. In the specification:*
Page 4, line 4, "polysultone" to -- polysulfone --;
page 4, line 7, "(2-aminoethyl)-3-aminopropyltrimethylmetoxysilane"
has been changed to -- (2-aminoethyl)-3-aminopropyltrimethylmethoxysilane --;
page 6, line 12, "yo" has been changed to -- to --;
page 11, line 3, "andadding" has been changed to -- and adding --;
page 11, line 8, "4 10" has been changed to -- 4-10 --.

In the Claims:

- Claim 1, last line, "grafted" has been changed to -- graft-polymerized --.
- Claim 13, line 10, "polymerization" has been changed to -- graft-polymerization --;
- last line, "covalently-bound" has been changed to -- graft-polymerized --.

End of Amendment.

*Corrections are NOT done for all possible typographical errors. Applicant's revision of the specification is requested.

REASONS FOR ALLOWANCE

5. The following is an examiner's statement of reasons for allowance: None of the prior art references of record, singly or combined, teach or suggest graft-polymerization of zwitterionic groups on the surface of a porous silica particle for use in high performance liquid chromatography (HPLC). The Wenzhi patent (US 5,589,069) teaches a coating of zwitterions on a porous silica particle, but the reaction is not polymerization grafting started from the surface of the silica particle. The Irgum patent (US 6,884,345) does not teach graft-polymerization of zwitterions on the surface of the porous silica particle. Similarly, the Yu article ("The Synthesis and Characterization of Chemically Bonded Silica-Based Zwitterion-Exchangers for HPLC") fails to teach grafting zwitterionic polymers of silica particle.
6. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."


DRAWINGS

7. The drawings filed on August 13, 2004 are acceptable.
8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to H. T. Le whose telephone number is 571-272-1511. The examiner can normally be reached on 10:00 a.m. to 6:30 p.m., Mondays to Fridays.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Carol Chaney can be reached on 571-272-1284. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


PATRICK JOSEPH RYAN
SUPERVISORY PATENT EXAMINER

FOR

H. T. Le
Primary Examiner
Art Unit 1773

December 20, 2006